

27 2009

Commitment

FY09 4TH QUARTER FINAL OUTPUT REPORT

Turkey Creek
2007 Approved

Submitted Summer 2007

TMDL PROJECTS QUARTERLY STATUS

1.3.9 TMDL Development – Project Completion by June 2009

Segment	Impairment	Project Manager	Comments
Alamo Lake Draft submitted no WLA for mine so Kicked back to us 2007 Public Noticed	Hg in Fish Tissue	stf	Q1-initial attempts to rerun the model with new soil concentrations have failed; deposition rates used in original model will need to be compared to the new REMSAD Tagging model. Q2- request has been made to EPA to fund model rerun include updated soil and atmospheric data Q3- Tetra Tech was awarded contract to rerun the WCS model using recent soil data to determine approximate natural watershed contributions, results expected by end April. Q4- Model updates were received in April and will be incorporated into TMDL report in FY10Q1
Parker Canyon Lake	Hg in Fish Tissue	ldl	Q1- modeling report has not been completed, expected by 11/1; new REMSAD Tagging and Tekran data will be incorporated into model. Q2- modeling report has not been completed, TMDL development is delayed until modeling is completed Q3- Preliminary modeling results have been reviewed and refinement of the model continues, results expected in Q4 along with a draft TMDL report. Q4- Draft model report was received at the end of Q4, TMDL development will begin in FY10Q1
Pinto Creek- headwaters to Ripper Spring	Cu	gso	Q1- SSS has been slightly revised based on additional field observations; SSS will be part of a special rule making process with TMDL to follow. Q2- special rule making is delayed slightly, TMDL will begin to be drafted in Q3 Q3- Malcolm Pirnie will finalize SSS modeling rerun and calculate TMDL numbers in Q4. Q4- Awaiting completion of SSS model report. TMDL submittal will be delayed until rule making moratorium is lifted. TMDL development will commence in FY10.
Pinto Creek- Ripper Spring to Roosevelt Lake	Cu	gso	Q1- same as above Q2- same as above Q3- same as above Q4- Same as above
Lower Lake Mary	Hg in Fish Tissue	stf	Q1- model rerun is required based upon new REMSAD Tagging model and Tekran data analysis results; consultation with consultant is forthcoming; results expected in Q2. Q2- modeling was delayed but is expected to be completed by the end of January Q3- Malcolm Pirnie has completed updating the lakes models and issues the final report; TMDL is being redrafted with completion in Q4 anticipated.

FY09 4TH QUARTER FINAL OUTPUT REPORT

			Q4- Draft TMDL report is undergoing internal review before 30-day public comment period.
Lower Long Lake	Hg in Fish Tissue	stf	Q1- see lower Lake Mary Q2- see Lower Lake Mary Q3- see Lower Lake Mary Q4- See Lower Lake Mary
Mule Gulch- headwaters to Above Lavender Pit	Cu	gso	Q1- natural background modeling is underway; results expected in Q2 Q2- modeling was not completed in Q2 Q3- additional soil data was reviewed in Q3 and will be incorporated into SSS modeling effort Q4- SSS modeling was continued through Q4. Adoption of SSS will be delayed until rule moratorium is lifted. TMDL development will commence in FY10.
Mule Gulch- Above Lavender Pit to Bisbee WWTP	Cu, pH	gso	Q1- see above Q2- see above Q3- see above Q4- See above
Mule Gulch- WWTP to Highway Bridge	Cd, Cu, pH, Zn	gso	Q1- see above Q2- see above Q3- see above Q4- See above
Gila River- New Mexico Border to Bitter Creek	Sediment Add <i>E. coli</i> - Q1	dm4	EPA approval by 9/2008 Q1- draft TMDL is complete, submittal to EPA by Spring 09; <i>E. coli</i> TMDL draft 75% complete. Q2- both TMDLs have been drafted and are under internal review. Public comment period will take place in Q3. Q3- internal review took longer than expected but has been completed; public comment period with be initiated in Q4. Q4- 30 day public comment period took place in Q4, internal review of response to comments is ongoing as is publication of 45-day AAR notice for <i>E. coli</i> TMDL. Sediment TMDL submittal will be delayed until reach is listed for SSC, but 45-day AAR will move forward.
Gila River- Bonita Creek to Yuma Wash	Sediment Add <i>E. coli</i> - Q1	dm4	EPA approval by 9/2008 Q1- draft TMDL is complete, submittal to EPA by Spring 09; <i>E. coli</i> TMDL draft 75% complete Q2- see above Q3- see above Q4- see above
Oak Creek- Headwaters to West Fork Oak Creek	<i>E. coli</i>	js9	EPA approval by 9/2008 Q1- data analysis underway; expected submittal by summer 2009 Q2- additional storm data was collected; flow duration

FY09 4TH QUARTER FINAL OUTPUT REPORT

			curves have been completed and conversion to load duration curves is underway Q3- Load Duration Curve development has continued, completion anticipated in Q4. Q4- Data analysis continued in Q4 and draft TMDL was started, completion anticipated in FY10Q1.
Oak Creek- West Fork Oak Creek to tributary (345709/1114513)	<i>E. coli</i>	js9	EPA approval by 9/2008 Q1- see above Q2- see above Q3- see above Q4- See above
Oak Creek- Tributary (345709/1114513) to below SRSP	<i>E. coli</i>	js9	EPA approval by 9/2008 Q1- see above Q2- see above Q3- see above Q4- See above
Oak Creek- below SRSP to Dry Creek	<i>E. coli</i>	js9	EPA approval by 9/2008 Q1-see above Q2- see above Q3- see above Q4- See above
Oak Creek- Dry Creek to Spring Creek	<i>E. coli</i>	js9	EPA approval by 9/2008 Q1- see above Q2- see above Q3- see above Q4- See above
Queen Creek- headwaters to Superior WWTP	Cu	kwp	EPA approval by 9/2008 Q1- hydrologic model is being calibrated; chemistry will be run in Q2, likely to EPA in Spring 09 Q2- final data QA/QC has been completed; calibration of chemistry will take place in Q3. Q3- initial chemical runs have been completed; refinement of concentrations for various land uses and mines continues. Q4- Modeling efforts continued. Cu appears to be moving toward a SSS, although other sources are present in watershed.
Queen Creek- Superior WWTP to Potts Canyon	Cu	kwp	EPA approval by 9/2008 Q1- see above Q2- see above Q3- see above Q4- See above
Soldiers Lake	Hg in Fish Tissue	stf	Q1- see lower Lake Mary Q2- see Lower Lake Mary Q3- see Lower Lake Mary Q4- See Lower Lake Mary

FY09 4TH QUARTER FINAL OUTPUT REPORT

Soldiers Annex Lake	Hg in Fish Tissue	stf	Q1- see lower Lake Mary Q2- see Lower Lake Mary Q3- see Lower Lake Mary Q4- See Lower Lake Mary
Upper Lake Mary	Hg in Fish Tissue	stf	Q1- see lower Lake Mary Q2- see Lower Lake Mary Q3- see Lower Lake Mary Q4- See Lower Lake Mary

Continued Monitoring for TMDL Development

Segment	Impairment	Project Manager	Comments
Alvord Lake	Ammonia	ds	Q1- high production seasonal sampling completed (2 events) to compare with proposed Narrative Nutrient Lakes Standard Q2- one more round of samples were collected Q3- "off-season" sampling was completed in February. Q4- No samples were collected
Chaparral Lake	Low D.O., <i>E. coli</i>	ds	Q1- high production seasonal sampling completed (2 events) to compare with proposed Narrative Nutrient Lakes Standard Q2- one more round of samples were collected Q3- "off-season" sampling was completed in February. Q4- No samples were collected
Colorado River- Lake Powell to Paria River	Se	ldl	Q1-loss of Colorado River staff member has delayed development of this study Q2- no action on project Q3- no action on project Q4- No action on project
Colorado River- Parashant Canyon to Diamond Creek	Se, SSC	ldl	Q1-loss of Colorado River staff member has delayed development of this study Q2- no action on project Q3- no action on project Q4- No action on project
Colorado River- Hoover Dam to Lake Mohave	Se	ldl	Q1- loss of Colorado River staff member has delayed development of this study Q2- no action on project Q3- no action on project Q4- No action on project
Colorado River- Main Canal to Mexico Border	Se, low D.O.	ldl	Q1- loss of Colorado River staff member has delayed development of this study Q2- no action on project Q3- no action on project Q4- No action on project
Cortez Park Lake	Low D.O., high pH	ds	Q1- high production seasonal sampling completed (2 events) to compare with proposed Narrative Nutrient Lakes Standard Q2- one more round of samples were collected. Q3- "off-season" sampling was completed in February Q4- No samples were collected

FY09 4TH QUARTER FINAL OUTPUT REPORT

Crescent Lake	High pH	db10	Q1- initial site recon and data analysis were begun; loss of staff will delay future work Q2- no action on project Q3- no action on project Q4- No action on project
East Verde River- American Gulch to Verde River	As, B	kwp	Q1- SAP devmnt. to commence in qtr. 3. Q2 - no action on project Q3- Preliminary SAP development has begun Q4- Initial field reconnaissance and sampling took place. Continued SAP development.
Gila River- Centennial Wash to Gillespie Dam	B, Se	kwp	Q1- no action on project Q2- no action on project Q3- no action on project Q4- No action on project
Little Colorado River- Silver Creek to Carr Wash	<i>E. coli</i>	dm4	Q1-sampling has begun with 2 events collected through summer season, automatic samplers have been installed to aid in storm sampling Q2- additional sampling occurred Q3- spring snow melt and winter baseflow sampling occurred Q4- No samples were collected
Little Colorado River- Porter Tank to McDonalds Wash	Cu, Ag, SSC	dm4	Q1- see LCR above Q2- see LCR above, no exceedances of the Cu or Ag standards have been observed, although other metal exceedances have been measured Q3- spring snow melt and winter baseflow sampling occurred Q4- No samples were collected
Paria River- Utah Border to Colorado River	<i>E. coli</i> , SSC	ld1	Q1- National Park Service collected <i>E. coli</i> samples throughout the summer, consultation with Utah and analysis of USGS data has occurred; loss of Colorado River staff will slow project development Q2- no action on project Q3- no action on project. Q4- No action on project
Santa Cruz River- Mexico Border to Nogales Inter WWTP	<i>E. coli</i>	cb9	Q1-sampling has begun with base flow samples collected; coordinating efforts with volunteer group Q2- no additional samples were collected Q3- Coldwater baseflow sampling was completed in January Q4- No action on project
San Pedro River- Aravaipa Creek to Gila River	<i>E. coli</i> , Se	cb9	Q1- several events were sampled during the summer monsoon season; high sediment load resulted in high reporting limits (above standard) for selenium Q2- cold water baseflow sampling was

FY09 4TH QUARTER FINAL OUTPUT REPORT

			completed Q3- no action on project Q4- No action on project
Watson Lake	Nitrogen, low D.O., high pH	stf	Q1- SAP is being finalized, no additional samples were collected in Q1 Q2- one storm runoff sampling event was completed Q3- spring runoff sampling occurred Q4- No sampling occurred, continued coordination with Prescott Creeks group and ADEQ WIGP.